Amendment to the Claims

1. **(Currently Amended)** A recombinant DNA molecule comprising:

(i) a nucleic acid molecule encoding a subtilisin-like serine protease or encoding a biologically active fragment of such a protein, selected from the group consisting of

(a) nucleic acid molecules comprising a nucleotide sequence encoding a protein comprising the amino acid sequence as given in SEQ ID NO: 2, 8, 10 or 12

(b) nucleic acid molecules comprising a nucleotide sequence as given in SEQ ID NO: 1, 7, 9 or 11;

(c) nucleic acid molecules encoding a protein comprising at least the D region, H region, substrate binding site and/or S region of the subtilisin-like serine protease encoded by a nucleic acid molecule of (a) or (b); or

(d) nucleic acid molecules hybridizing with the complementary strand of a nucleic acid molecule as defined in any one of (a) ~~or~~ to (c);

(e) nucleic acid molecules encoding a protein the amino acid sequence of which is at least 65% identical to the amino acid sequence encoded by a nucleic acid molecule of any one of (a) to (c);

(f) nucleic acid molecules, the nucleotide sequence of which is degenerate as a result of the genetic code to a nucleotide sequence of a nucleic acid molecule as defined in any one of (a) to (e); or

(ii) a nucleic acid molecule encoding a mutant non-active or a hyper-active form of or an antibody against the

subtilisin-like serine protease encoded by a nucleic acid molecule of (i); or

(iii) a nucleic acid molecule which specifically hybridizes with a nucleic acid molecule of (i) or the complementary strand thereof;

wherein said recombinant molecule modifies stomatal density when transgenically expressed.

2. **(Original)** The recombinant DNA molecule of claim 1 wherein the nucleic acid molecule is DNA, cDNA, genomic DNA or synthetically synthesized DNA.

3. **(Currently Amended)** The recombinant DNA molecule of claim 1 wherein the nucleic acid molecule is derived from a plant~~, preferably Arabidopsis or potato~~.

4. **(Original)** The recombinant DNA molecule of any one of claims 1 to 3 wherein said nucleic acid molecule is operably linked to regulatory elements allowing the expression of the nucleic acid molecule in plants.

5. **(Previously Presented)** A vector comprising a recombinant DNA molecule of claim 1.

6. **(Previously Presented)** A host cell containing a vector of claim 5 or a recombinant DNA molecule of claim 1.

7. **(Previously Presented)** A method for the production of transgenic plants with altered stomata characteristica compared to wild type plants comprising the introduction of a recombinant DNA molecule of claim 1 or the vector of claim 5.

8. **(Currently Amended)** A transgenic plant cell comprising stably integrated into the genome a recombinant DNA molecule of claim ~~1 or a vector of claim 5 or obtainable according to the method of claim 7~~, wherein the expression of the nucleic acid molecule results in an increased expression or activity of subtilisin-like serine proteases in transgenic plants compared to wild type plants.

9. **(Original)** A transgenic plant or a plant tissue comprising plant cells of claim 8.

10. **(Currently Amended)** The transgenic plant of claim 9 which displays a decreased stomata density or~~,~~ lower conductance of stomata ~~and/~~or wherein the water consumption is lowered, compared to wild type plants.

11. **(Currently Amended)** A transgenic plant cell which contains stably integrated into the genome a recombi~~n~~nant DNA molecule of claim 1~~ or part thereof, a vector of claim 5 or obtainable according to the method of claim 7~~, wherein the presence, transcription ~~and/~~or expression of the nucleic acid molecule or part thereof leads to reduction of the synthesis or the activity of subtilisin-like serine proteases in transgenic plants compared to wild type plants.

12. **(Currently Amended)** The plant cell of claim 11, wherein the reduction is achieved by an antisense, sense, ribozyme, co-suppression ~~and/~~or dominant mutant effect.

13. **(Previously Presented)** A transgenic plant or plant tissue comprising the plant cells of claim 11.

14. **(Currently Amended)** The transgenic plant of claim 13 which displays increased stomata density ~~and/~~or higher conductance of stomata ~~and/~~or increased content of sugars and/or protein in plant leaves compared to wild type plants.

15. **(Previously Presented)** The transgenic plant of claim 9, the plant cell of claim 8, or the plant tissue of claim 9, wherein said plant, plant cell or plant tissue is derived from a monocotyledonous or dicotyledonous plant.

16. **(Original)** The transgenic plant, plant cell or plant tissue of claim 15, wherein said plant is derived from maize, rice, barley, wheat, rye, oats, tomato, melon, banana, chicoree, salad, cabbage, potato, tobacco, alfalfa, clover oilseed rape, sunflower, peanut, soybean, cotton, sugar beet, linseed, flax, millet, hemp, sugar cane, bean, pea or tree.

17. **(Previously Presented)** Harvestable parts or propagation material of plants of claim 9.

18. **(Previously Presented)** A kit comprising a recombinant DNA molecule of claim 1 or a vector of claim 5.

19. **(Currently Amended)** A method for the production of a transgenic plant comprising an increased yield ~~and/~~or increased stomatal density compared to wild type plants, wherein

(a) a plant cell is genetically modified by the introduction of a foreign nucleic acid molecule the presence of which or the expression of which results in a decreased activity of a subitlase;

(b) a plant is regenerated from the cell prepared according to step (a); and

(c) further plants, if any, are generated from the plant prepared according to step (b).

20. **(Currently Amended)** A method for the production of a transgenic plant having a decreased ~~w~~water consumption ~~and/~~or decreased stomatal density compared to wild type plants wherein

(a) a plant cell is genetically modified by the introduction of a foreign nucleic acid molecule the presence of which or the expression of which results in an increased activity of a subtilase;

(b) a plant is regenerated from the cell prepared according to step (a); and

(c) further plants, if any, are generated from the plant prepared according to step (b).

21. **(Currently Amended)** ~~Use~~ A method for sustained photosynthesis under high intensity conditions or for the improvement of disease resistance of plants comprising producing a transgenic plant by introducing ~~of~~ a nucleic acid molecule encoding or regulating the expression of a subtilisin-like serine protease or a nucleic acid molecuele hybridizing with such a nucleic acid molecule, a nucleic acid molecuele as defined in claim 1, a recombinant DNA molecule of claim 1, or a vector of claim 5, ~~for the production of plants with~~ wherein said transgenic plants have improved fresh and dry weight, ~~for enhancing the content of~~ or enhanced sugar contents ~~and/~~or protein in plant leaves ~~for the production of~~

~~plants with reduced leaf temperatures~~ or ~~with~~ have reduced water loss and lower water consumption, and wherein said plants have reduced leaf temperatures ~~for the~~or ~~modification (enhancement)~~ of CO_2 uptake into and H_2O release from leaves that results in~~,~~ ~~for~~ sustained photosynthesis under high intensity conditions or ~~for the~~ improvement of disease resistance ~~of plants~~.

22. **(New)** The recombinant molecule of claim 3, wherein said molecule is derived from Arabidopsis or potato.

23. **(New)** A recombinant DNA molecule comprising:

a nucleic acid molecule encoding a subtilisin-like serine protease or encoding a biologically active fragment of such a protein, selected from the group consisting of

(a) nucleic acid molecules comprising a nucleotide sequence encoding a protein comprising the amino acid sequence as given in SEQ ID NO: 2;

(b) nucleic acid molecules comprising a nucleotide sequence as given in SEQ ID NO: 1;

(c) nucleic acid molecules encoding a protein comprising at least the D region, H region, substrate binding site and/or S region of the subtilisin-like serine protease encoded by a nucleic acid molecule of (a) or (b); or

(d) nucleic acid molecules hybridizing with the complementary strand of a nucleic acid molecule as defined in any one of (a) to (c);

(e) nucleic acid molecules encoding a protein the amino acid sequence of which is at least 65% identical to the amino acid sequence encoded by a nucleic acid molecule of any one of (a) to (c);

(f) nucleic acid molecules, the nucleotide sequence of which is degenerate as a result of the genetic code to a nucleotide sequence of a nucleic acid molecule as defined in any one of (a) to (e); or

wherein said recombinant molecule modifies stomatal density when transgenically expressed.

24. **(New)** A vector comprising a recombinant DNA molecule of claim 23.

25. **(New)** A host cell containing a vector of claim 24 or a recombinant DNA molecule of claim 23.

26. **(New)** A method for the production of transgenic plants with altered stomata characteristica compared to wild type plants comprising the introduction of a recombinant DNA molecule of claim 23 or the vector of claim 24.

27. **(New)** A transgenic plant cell comprising stably integrated into the genome a recombinant DNA molecule of claim 23, wherein the expression of the nucleic acid molecule results in an increased expression or activity of subtilisin-like serine proteases in transgenic plants compared to wild type plants.

28. **(New)** A transgenic plant or a plant tissue comprising plant cells of claim 27.

29. **(New)** The transgenic plant of claim 28 which displays a decreased stomata density or lower conductance of stomata or wherein the water consumption is lowered, compared to wild type plants.

30. **(New)** A kit comprising a recombinant DNA molecule of claim 23 or a vector of claim 24.

31. **(New)** A method for the production of a transgenic plant having a decreased water consumption or decreased stomatal density compared to wild type plants wherein

(a) a plant cell is genetically modified by the introduction of a foreign nucleic acid molecule according to claim 23, the presence of which or the expression of which results in an increased activity of a subtilase;

(b) a plant is regenerated from the cell prepared according to step (a); and

(c) further plants, if any, are generated from the plant prepared according to step (b).

32. **(New)** A method for sustained photosynthesis under high intensity conditions or for the improvement of disease resistance of plants comprising producing a transgenic plant by introducing a nucleic acid molecule encoding or regulating the expression of a subtilisin-like serine protease or a nucleic acid molecule hybridizing with such a nucleic acid molecule, a nucleic acid molecule as defined in claim 23, a recombinant DNA molecule of claim 23, or a vector of claim 24, wherein said transgenic plants have improved fresh and dry weight, or enhanced sugar content or protein in plant leaves or have reduced water loss and lower water consumption, and wherein said plants have reduced leaf temperatures or enhancement of CO_2 uptake into and H_2O release from leaves that results in sustained photosynthesis under high intensity conditions or improvement of disease resistance.